

Status of the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

Claims 1-50 (Cancelled)

51. (Currently Amended) The charge pump of claim 68 ~~claim 50~~, wherein the charge pump is implemented using CMOS technology.

52. (Currently Amended) The charge pump of claim 69 ~~claim 50~~, wherein the feedback means is coupled to one of the first and second current sources via an adjusting current source.

53. (Previously Presented) The charge pump of claim 52, wherein the adjusting current source is coupled between the feedback means and one of the first and second current sources.

54. (Currently Amended) The charge pump of claim 69 ~~claim 50~~, wherein the feedback means is coupled directly to one of the first and second current sources.

55. (Currently Amended) The charge pump of claim 69 ~~claim 50~~, wherein the filter is an analog loop filter.

56. (Currently Amended) The charge pump of claim 69 ~~claim 50~~, wherein the filter comprises:

a resistor;

a first capacitor coupled in series with the resistor; and

a second capacitor coupled in parallel with the resistor and the first capacitor,

wherein an input to the feedback means is coupled to a node between the resistor and the first capacitor.

57. (Currently Amended) The charge pump of claim 56, wherein:
the feedback means is an amplifier;
the capacitor in the system is coupled between a reference potential and another input of the amplifier, such that the inputs of the amplifier are in static balance with respect to one another.

58. (Currently Amended) The charge pump of claim 69 ~~claim 50~~, wherein the feedback means is an amplifier.

59. (Currently Amended) The charge pump of claim 68 ~~claim 50~~, wherein ~~the first current path comprises:~~
the first device is a first switching device; and
the second device is a second switching device;
~~wherein the first output node is located between the first and second switching devices.~~

60. (Previously Presented) The charge pump of claim 59, wherein the first and second switching devices are transistors.

61. (Currently Amended) The charge pump of claim 68 ~~claim 50~~, wherein ~~the second current path comprises:~~
the third device is a first switching device; and
the fourth device is a second switching device;
~~wherein the second output node is located between the first and second switching devices.~~

62. (Previously Presented) The charge pump of claim 61, wherein the first and second switching devices are transistors.

63.-67. (Cancelled)

68. (New) A charge pump, comprising:

- a first current source;
- a second current source;
- a first current path, including,
 - a first device connected at a first end to the first current source and at a second end to a first output node, and
 - a second device connected at a first end to the output node and at a second end to the second current source,
- a second current path, comprising,
 - a third device connected at a first end to the first current source and at a second end to a second output node, and
 - a fourth device connected at a first end to the second output node and at a second to the second current source; and
- a system that controls a value of the second current source to correct for a voltage difference between the first and second output nodes.

69. (New) The charge pump of claim 68, wherein the system comprises:

- a capacitor connected at a first end to the second output node and at a second end to ground;
- a filter connected at a first end to the first output node; and
- a feedback means having a first input connected to a second end of the filter, a second input coupled to the first end of the capacitor, and an output coupled to one of the first and second current sources.